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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,806	10/21/2003	Dennis Brian Shea	124858/GETS 5307.1	4367
321	7590	12/03/2004	EXAMINER	
SENNIGER POWERS LEAVITT AND ROEDEL			TRIEU, THAI BA	
ONE METROPOLITAN SQUARE			ART UNIT	
16TH FLOOR			PAPER NUMBER	
ST LOUIS, MO 63102			3748	

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/689,806	<b>Applicant(s)</b> SHEA ET AL.	
	<b>Examiner</b> Thai-Ba Trieu	<b>Art Unit</b> 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-25 and 27-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-6, 18-24, 30 and 32-34 is/are allowed.
- 6) ☒ Claim(s) 1,7,14,16,17,25,27,28 and 31 is/are rejected.
- 7) ☐ Claim(s) 8-13,15 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This Office Action is in response to the Amendment filed on October 07, 2004. Applicant's cooperation in correcting the informalities in the Abstract is appreciated. Claims 1, 3-6, 17, 25, 30, 32- and 33 were amended; and Claims 2 and 6 were cancelled.

Applicant's arguments, see Pages 12-19, filed October 07, 2004, with respect to the rejection(s) of claim(s) 1-2, 4-7, 14-17, 23-28, 31 and 33 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is set forth below.

### *Claim Objections*

Claims 27-29 and 31 are objected to because of the following informalities:

- Line 1, "**claim 26**" after "**The method of**" should be replaced by – **claim 25** --, since the claim 26 has been cancelled.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 7, 14, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Fenelon et al. (Patent Number 5,724,813).**

**Regarding claims 1 and 7,** Fenelon discloses an apparatus for detecting and responding to a surge event in a locomotive engine system including a turbocharger and a diesel engine, the apparatus comprising:

a sensor (39) detecting an operating parameter of the turbocharger (3) or the engine (1) and generating a sensor signal indicative of the detected operating parameter; and

an engine control system (33) responsive to the sensor signal for controlling a plurality of operational controls of the diesel engine system, wherein the engine control system modifies one or more operational controls of the diesel engine system when the sensor signal indicates a surge event (See Figure 1, and Column 3, lines 41-62, and Column 4, lines 34-52).

**Regarding claims 14 and 16,** Fenelon further discloses the sensor being a manifold air pressure (MAP) (37) transducer associated with an intake manifold of the diesel engine (1) and the sensor signal is a MAP signal representing the air pressure within the intake manifold of the diesel engine, and wherein the engine control system (33) increases the speed of the diesel engine when the MAP signal indicates a decrease in the air pressure of equal to or greater than a predefined amount of pressure within the defined period of time (See Figure 1, Column 5, lines 60-67, and Column 6, lines 1-6); and the sensor (35) being a pressure transducer associated with an air intake system of the turbocharger and the sensor signal represents an air pressure at the air intake system of the turbocharger, and wherein the engine control system increases the

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speed of the diesel engine when the sensor signal indicates an increase or decrease in the air pressure over time (See Figure 1, and Column 3, lines 41-62, and Column 4, lines 34-52).

**Regarding claims 25, 27-28, and 31**, the method as claimed would be inherent during the normal use and operation of the Fenelon device as disclosed.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

***Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fenelon (Patent Number 5,724,813), in view of Harned (Patent Number 4,012,942).***

Fenelon discloses the invention as recited above; however, Sun fails to disclose the sensor being a strain gauge or an accelerometer associated with a surface of an air intake system.

Harned teaches that it is conventional in the internal combustion engine art, to utilize the sensor being a strain gauge or an accelerometer (10) associated with a surface of an air intake system (See Abstract, Column 2, lines 6-25).

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It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized the sensor being a strain gauge or an accelerometer associated with a surface of an air intake system, as taught by Harned, to improve the Fenelon internal combustion engine efficiency and performance.

### ***Allowable Subject Matter***

Claims **3-6, 18-24, 30, and 32-34** are allowed.

Claims **8-13, 15, 29** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 3-25, and 27-34 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Nishiyama et al. (US Patent Number 6,769,255 B2) disclose a variable nozzle opening control system for exhaust turbine supercharger.

- Matsuoka (US Patent Number 4,505,117) discloses a turbocharged internal combustion engine having an engine driven positive displacement compressor.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (571) 272-4867. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTB  
November 23, 2004

  
Thai-Ba Trieu  
Patent Examiner  
Art Unit 3748